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TO: Examiner: Jonathan J. JOHNSON	FROM: Sumit Bhattacharya
COMPANY: USPTO	DATE: February 21, 2006
FAX NUMBER: (571) 273-8300	TOTAL NO. OF PAGES INCLUDING COVER: 12
PHONE NUMBER:	SENDER'S REFERENCE NUMBER: 12553/94
RE: 10/603,444	YOUR REFERENCE NUMBER: Group Art Unit: 1725

☐ URGENT ☒ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ CONFIRMATION
☐ ORIGINAL WILL FOLLOW ☒ ORIGINAL WILL NOT FOLLOW

Notes/Comments:

RESPONSE TO NON-COMPLIANT APPEAL BRIEF

1. Fax Cover Sheet (1)
2. Appeal Brief (11)

Total: (12) pages

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Patent

Attorney Docket No.: 12553/94

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Ming Gao YAO et al.

SERIAL NO. : 10/603,444

FILED : June 24, 2003

FOR : SYSTEM AND METHOD FOR MANUFACTURE OF A
HARD DISK DRIVE ARM AND BONDING OF
MAGNETIC HEAD TO SUSPENSION ON A DRIVE
ARM

GROUP ART UNIT : 1725

EXAMINER : Jonathan J. JOHNSON

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Dated: February 21, 2006	Signature <u>Barbara Vance</u> Barbara Vance

ATTENTION: Board of Patent Appeals and Interferences**APPEAL BRIEF**

Dear Sir:

This brief is in furtherance of the Notice of Appeal, filed in this case on September 6, 2005. This brief has been amended in response to the Notification of Non-Compliant Appeal Brief under 37 C.F.R. 41.47 dated January 18, 2006.

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1. REAL PARTY IN INTEREST

The real party in interest in this matter is SAE Magnetics (H.K.) Ltd. (Recorded November 17, 2003, Reel/Frame 014698/0612).

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals.

3. STATUS OF THE CLAIMS

Claims 16-28 are pending in the application. Claims 1-15 have been cancelled. Claims 16-23 were rejected under 35 U.S.C. §103(a). Claims 24-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. This appeal is an appeal from the rejection of claims 16-23 and of objected claims 24-28.

4. STATUS OF AMENDMENTS

No amendments are currently outstanding.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 16 recites a method for manufacturing a data storage device. A placement device 305 physically stabilizes a hard drive head device 321 for electrical bonding of the head device 321 to a hard drive arm component 324. (See Figure 3 and p. 5, paragraph 14). The placement device 305 also physically stabilizes the hard drive arm component 324.

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(See **Figure 3** and p. 5, paragraph 14). The placement device 305 uses sub-ambient pressure to maintain the position of said head device 321 with respect to said arm component 324 for said electrical bonding. (See **Figure 3** and p. 5, paragraph 14).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 16-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of U.S. Patent No. 3,566,207 to Adams et al., (hereinafter "Adams").

7. ARGUMENT

A. **Claims 16-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over the AAPA in view of Adams.**

Independent claim 16 of the present invention describes a method for manufacturing a data storage device. A placement device physically stabilizes a hard drive head device for electrical bonding of the head device to a hard drive arm component. The placement device also physically stabilizes the hard drive arm component. The placement device uses sub-ambient pressure to maintain the position of said head device with respect to said arm component for said electrical bonding. Claims 17-23 depend from claim 16.

Appellants respectfully submit that neither the AAPA or Adams teach or suggest the placement device physically stabilizing the hard drive head device and the hard drive arm component, as recited in claims 1, 9, and 19. Adams, which discloses using vacuum chuck to mount a silicon chip on a gold-surfaced mounting pad, does not disclose this feature nor, does

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the Examiner claim that it does. (See Col. 3, lines 68-75). Instead, the Examiner relies on the AAPA as embodied in Figure 2. The AAPA states:

A base support 211 and a first clamping cover 220 stabilize the magnetic head 202. A second clamping cover 221 stabilizes the suspension tongue 206. A second base support (not shown) secures the load beam 212.

(See AAPA, p. 3, paragraph 4).

In other words, the AAPA has one device, the clamping cover 220, stabilizing the magnetic head device and a second device, the second base support, securing the load beam 212, rather than a single placement device stabilizing both. Therefore, the cited references do not disclose all the elements of the claim, as set forth in claims 16. Appellants respectfully submit, therefore, that elements of claim 16 are neither shown nor suggested by the cited reference. Claims 17-23 depend from claim 16.

In addition and in the alternative, Appellants respectfully submit that there is no suggestion or motivation to combine the background of the application and Adams beyond the impermissible use of hindsight. The Examiner references Col. 3, lines 50-75 of Adams as providing a motive to combine. The relevant portion of Adams cited by the Examiner states:

Alternatively, the chip 14 may be held in a vacuum chuck 64, also shown in FIG. 5, for placing the chip 14 on the mounting pad 16 of the lead frame 18, and may be employed for applying slight pressure downwardly, if desired, of a magnitude of about a few grams. (Adams, Col. 3, lines 68-75).

Adams clearly provides no such motive to combine, as the portion cited by the Examiner does not state what advantage may come from replacing the clamps of the AAPA with the vacuum chuck of Adams. Such motive would have to come from the AAPA, meaning that the motive combine came from the Appellants own insight.

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Therefore, Appellants submit that a *prima facie* case of obviousness has not been made. The MPEP requires that the references must suggest making the combinations. MPEP §2141.01 (citing *Hodosh v. Block Drug Co., Inc.*); §706.02(j) (the initial burden is on the examiner to provide a convincing line of reasoning with explicit or implicit suggestions to combine references).

Merely stating that it would have been obvious for a person of ordinary skill in the art to combine references, without pointing to a specific hint or suggestion to combine, has been rejected by the Federal Circuit, as an invalid basis of rejection under 35 U.S.C. §103. *In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002) (the court rejected a conclusory statement that it would have been obvious to combine the references without evidence of a teaching, motivation, or suggestion to select and combine the references, citing numerous cases); *In re Dembiczak*, 175 F.3d 994,999 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”) It would be impossible for these references to be combined minus hindsight. Any motive to combine present in the background section of the application would be from the applicant or hindsight and not the result of any prior art.

Accordingly reconsideration and withdrawal of the rejection of claims 16-23 under 35 U.S.C. §103(a) is respectfully requested.

Appellants therefore respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner’s decision rejecting claims 1-26 and direct the Examiner to pass the case to issue.

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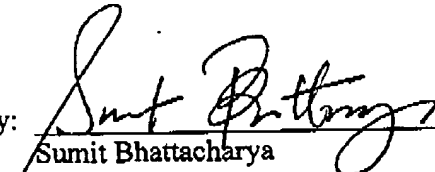
The Examiner is hereby authorized to charge any additional fees, which may be necessary for consideration of this paper to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

KENYON & KENYON LLP

Date: February 21, 2006

By:


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APPENDIX

(Brief of Appellant Ming Gao YAO et al.
U.S. Patent Application Serial No. 10/603,444)

8. CLAIMS ON APPEAL

16. A method for manufacturing a data storage device comprising:
physically stabilizing, by a placement device, a hard drive head device for electrical bonding of said head device to a hard drive arm component;
physically stabilizing, by the placement device, the hard drive arm component; and
utilizing, by said placement device, sub-ambient pressure to maintain the position of said head device with respect to said arm component for said electrical bonding.
17. The method of claim 16, wherein said hard drive head device is a hard disk drive magnetic head.
18. The method of claim 17, wherein said hard drive arm component is a suspension tongue.
19. The method of claim 16, wherein said electrical bonding is ball bonding.
20. The method of claim 19, wherein said electrical bonding is a type selected from the group consisting of gold ball bonding (GBB), solder bump bonding (SBB), ultrasonic welding, and stitch bonding.

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21. The method of claim 20, wherein said placement device includes a first vacuum tube structure for providing said sub-ambient pressure to affix said first vacuum tube structure to said head device.
22. The method of claim 21, further comprising:
providing an alignment pin protruding from said placement device.
23. The method of claim 22, wherein said alignment pin is capable of being inserted into a suspension tooling hole for ensuring said proper alignment.
24. The method of claim 22, further comprising:
providing sub-ambient pressure, by a second vacuum tube;
vacuum-coupling said first vacuum tube structure to said head device; and
vacuum-coupling said second vacuum tube structure to a suspension load beam attached to said arm component.
25. The method of claim 24, wherein the first vacuum tube structure includes a step structure mate-able to an edge of the head device.
26. The method of claim 25, wherein said step structure is mate-able to at least the leading edge of said head device.

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27. The method of claim 24, wherein said first vacuum tube structure is a material selected from the group consisting of Stainless Steel, Copper, Aluminum Oxide, Polyimide, and Ceramic.

28. The method of claim 24, wherein said second vacuum tube structure is a material selected from the group consisting of Stainless Steel, Copper, Aluminum Oxide, Polyimide, and Ceramic.

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9. EVIDENCE APPENDIX

No further evidence has been submitted with this Appeal Brief.

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10. RELATED PROCEEDINGS APPENDIX

Per Section 2 above, there are no related proceedings to the present Appeal.